

CLAIMS

What is claimed is:

1. A modular system comprising:

a leveling platform providing a reference surface, wherein the reference surface is made substantially level; and

one or more light emitting modules detachable from the leveling platform, wherein each of the modules has at least two sides that allow substantially parallel positioning on the reference surface and allow substantially parallel positioning against another light emitting module;

wherein each of the modules cooperates with the reference surface to provide oriented light.

2. The modular system of claim 1, wherein the leveling platform is self-leveling.

3. The modular system of claim 1, wherein the leveling platform is manually-leveling.

4. The modular system of claim 1, wherein the leveling platform couples electrical power to the one or more light emitting modules.

5. The modular system of claim 1, wherein:

the reference surface includes a first electrically conductive area to provide a first path for electrical power; and

the leveling platform further includes a second electrically conductive area electrically insulated from the first electrically conductive area of the reference surface to provide a second path for electrical power.

6. The modular system of claim 5, wherein the first electrically conductive area includes a ferrous material.

7. A module comprising:

a housing having a plurality of sides, an aperture defined in a first side of the sides, and a magnetic fastener on at least two of the sides; and

a light source mounted within the housing; whereby the aperture allows light from the light source to pass from the housing.

8. The module of claim 7, wherein at least one of the magnetic fasteners on a second of the sides includes a magnetic member mounted for rotation about an axis orthogonal to the first side.

9. The module of claim 8, wherein the magnetic member includes of a pair of magnets.

10. The module of claim 7, wherein the magnetic fastener includes one or more magnets fixedly mounted on the side.

11. The module of claim 7, wherein a magnetic fastener on the first side having the aperture includes one or more magnets fixedly mounted on the first side.

12. The module of claim 11, wherein the magnets are spaced around the aperture.

13. The module of claim 7, wherein the aperture includes a lens.

14. The module of claim 7, wherein the light source has a predetermined orientation that is fixed with respect to one or more of the sides.

15. The module of claim 7, further comprising a conductive lead coupled to the light source, wherein the conductive lead extends from the housing.

16. The module of claim 15, wherein the conductive lead comprises a wire and a magnet positioned at a distal end of the conductive wire.

17. The module of claim 15, wherein:

the housing is electrically coupled to the light source;

the housing includes a conductive member to provide a first path for electrical power; and

the conductive lead provides a second path for electrical power.

18. A module comprising: ✓

a housing having two or more reference sides, wherein each reference side defines a corresponding reference plane; and

a light source in the housing and emitting light having a predetermined orientation with respect to each of the reference planes.

19. The module of claim 18, wherein there are at least three reference sides.

20. The module of claim 18, wherein the housing defines six rectangular sides, one of the sides defining an aperture whereby light from the light source passes out.

21. The module of claim 20, wherein the rectangular sides each have linear dimensions of equal length thereby defining a cube.

22. The module of claim 18, wherein the light source includes a laser diode.

23. The module of claim 18, wherein the predetermined orientation of the light source is parallel to at least one of the reference planes.

24. The module of claim 18, wherein the predetermined orientation of the light source is orthogonal to at least one of the reference planes.

25. The module of claim 18, wherein the emitted light forms a plane of light that projects a line on a distant surface.

26. The module of claim 18, wherein the emitted light forms a linear beam of light that projects a spot on a distant surface.

27. The module of claim 18, further comprising a conductive lead electrically coupled to the light source, wherein the conductive lead extends from the housing.

28. The module of claim 27, wherein the conductive lead comprises a wire and a magnet positioned at a distal end of the conductive wire.

29. The module of claim 27, wherein:

the housing is electrically coupled to the light source;

the housing provides a first path for electrical power; and

the conductive lead provides a second path for electrical power.

30. A module comprising:

a light source;

a housing including an electrically conductive member, wherein the electrically conductive member is coupled to the light source; and

a conductive lead, wherein the conductive lead is electrically coupled to the light source, and wherein the conductive lead extends from the housing.

31. The module of claim 30, wherein the conductive lead includes a wire.

32. The module of claim 30, wherein the conductive lead further includes a magnet connected at a distal end of the wire.

33. The module of claim 30, wherein the housing further includes an insulating member.

34. The module of claim 30, wherein the conductive lead extends from the insulating member.

35. A laser module comprising:

a housing having an external conductive member providing a conductive surface and an external non-conductive member;

a conductive lead; and

a laser generator within the housing, the laser generator including

a first conductor electrically coupling the laser generator to the conductive surface of the housing; and

a second conductor electrically coupling the laser generator to the conductive lead.

36. The laser module of claim 35, further comprising magnets positioned on one or more of faces of the external conductive member.

37. A laser module comprising:

a light source including a laser diode;

a shell having six square sides defining a cube, wherein the shell includes

an insulating member; and

an electrically conductive member having

an aperture, wherein the aperture includes a lens; and

a plurality of reference sides, wherein

each reference side defines a corresponding reference plane;

at least one of the reference planes is parallel to an axis of the light source;

at least one of the reference planes is orthogonal to the axis of the light source;

at least one of the reference sides includes a pair of magnets mounted for rotation about an axis orthogonal to the reference side; and

at least one of the magnetic fastener includes one or more magnets fixedly mounted around the aperture and in a plane defined by the aperture;

wherein the electrically conductive member is electrically coupled to the light source and provides a first electrical path for power; and

a conductive lead including a conductive wire and a magnet at positioned at a distal end of the conductive wire; wherein

the conductive wire is electrically coupled to the light source and provides a second electrical path for power; and

the conductive lead extends from the insulating member.

38. A method of providing a light pattern on a distant surface comprising:

making substantially level a reference surface on a leveling platform;

attaching magnetically a reference side of a first light emitting module to the reference surface of the leveling platform; and

providing power to the first light emitting module.

39. The method of claim 38, further comprising:

attaching magnetically a reference side of a second light emitting module to the reference surface of the leveling platform;

positioning another reference side of the first module and another reference side of the second module substantially parallel to and against each other; and

providing electrical power to the second module.

40. The method of claim 39, wherein the step of positioning includes rotating magnetic poles of a magnetic member in the another reference side of the first module to align attractively with magnetic poles of a magnetic member in the another reference side of the second module.

41. The method of claim 39, further comprising detaching magnetically one of the modules.

42. The method of claim 39, further comprising attaching magnetically a reference side of a third light emitting module to the reference surface of the leveling platform.

43. The method of claim 38, further comprising:

detaching magnetically the first module from the reference surface of the leveling platform; and

attaching magnetically a reference side of a second light emitting module to the reference surface of the leveling platform.

44. The method of claim 38, further comprising:

detaching magnetically the reference side of the first module from the reference surface of the leveling platform; and

attaching magnetically a different reference side of the first module to the reference surface of the leveling platform.